



## MECHANICAL CHECK LIST

### Instructions:

Circled items on the following list show required corrections to be made on the original drawings. Two sets of prints from the corrected originals must be submitted for recheck, along with the marked-up set of drawings. Return this list with the corrected plans. Indicate on the left of each circled item the sheet number of the drawings where the required corrections are shown.

Note: Minor corrections may be made on the plans, in ink, when approved by the plan checker. Such corrections shall be initialed by the person responsible for the plan preparation.

References shown in parentheses are to:

- (a) Uniform Mechanical Code, 2000 (UMC)
- (b) Uniform Building Code, 2000 (UBC)
- (c) California Business and Professional Code (B&P)

### 1.0 General Corrections

- 1.1 Health Department approval required for \_\_\_\_\_.
- 1.2 Incomplete, inconsistent or illegible drawings and calculations. Revise and resubmit. (UMC 113.1, 2 & 3)
- 1.3 The plans require the wet signature, stamp and expiration date of a California Registered Mechanical Engineer or the licensed contractor who is installing the mechanical system(s). (B&P 6735.7)
- 1.4 Refer to the comments on the marked-up set of plans.
- 1.5 The building contains commercial food heat-processing equipment. Submit plans to the plan check unit of the Community Food and Housing Division for review and approval. (Call 338-2222 and ask for food plan check assistance)
- 1.6 The plans must be signed by the California licensed professional who is responsible for their preparation. (Registered Mechanical Engineering or Architect) (B&P CH. 7, article 3)

### 2.0 HVAC Equipment Installation

- 2.1 Provide details of the equipment installation. Indicate the locations, clearances, connections, valves and vents.
- 2.2 Provide manufacturer's specifications (catalog cut sheets) of the proposed equipment. The cut sheets shall indicate performance, physical, and electrical features.
- 2.3 Show that the condensate from air-cooling coils and overflow from evaporative coolers will be collected and discharged to an approved plumbing fixture or disposal area. (UMC 310)
- 2.4 Show on the plans the correct size of the condensate drainpipe. (UMC 310)

### 3.0 Combustion Air

- 3.1 Combustion air shall be obtained from the outside for structure of unusually tight construction. (UMC 701.2)
- 3.2 When the volume where the installed appliance is less than 50 cu ft per 1000 BTU of input heat provide minimum unobstructed air openings per Table 7A UMC.
- 3.3 The volume of combustion air must be increased to account for the operation of exhaust fans, kitchen ventilation system, clothes dryers and fireplaces. Submit calculation. (UMC 706)

### 4.0 Conditioned Air Supply

- 4.1 The minimum unobstructed area of the conditioned air supply duct must comply with UMC Referenced standards. (Ch.16 Part 2)
- 4.2 Show the location and construction details for a permanent access to roof equipment. (UMC Sec. 305, 505)
- 4.3 Gas vent, type, size and location shall comply with UMC Chapter 8, as applicable.
- 4.4 Show in detail that vibration isolators between the HVAC equipment and the metal ducts will be installed. (UMC Sec. 602.7)
- 4.5 Materials exposed within ducts or plenums shall have a flame spread-index of not more than 25 and a smoke-developed rating of not more than 50 when tested in accordance with the test for "surface burning characteristics of building materials," UBC standard 801, 602.2 UMC.
- 4.6 Demonstrate that materials installed within ducts or plenums for insulating, sound deadening or other purposes shall have a mold-, humidity- and erosion-resistant surface that meets the requirements of UMC standard 6-1. Duct liners in systems operating with air velocities exceeding 2,000 feet per minute shall be fasteners. Exposed edges shall have adequate treatment to withstand the operating velocity. (605 UMC)
- 4.7 Indicate location of all rated walls and smoke-fire dampers on mechanical plan sheets. (UMC 606)
- 4.8 Show on the plans a detail of the fire damper installation per SMACNA Fire, Smoke and Radiation Damper Installation Guide for HVAC Systems Manual or equally approved standards. Submit manufacturers catalog cut sheets.
- 4.9 Provide shut down smoke-detection units in the supply air aide of air-moving systems operating in excess of 2,000 cfm per Section 609 UMC.
- 4.10 Add this note to the plans: "For cooling equipment located in an attic or furred space, an additional watertight pan of corrosion-resistant metal shall be installed beneath the

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cooling coil to catch the overflow condensate due to clogged primary condensate drain.” (UMC 310.1.1)

5.0 **Commercial Hoods and Kitchen Ventilation**

- 5.1 Obtain approval from the plan check unit of the Community Food and Housing Division. (Call 338-2222, and ask for food plan check assistance.)
- 5.2 Provide construction details for the type of exhaust hood which is approved for the kitchen equipment to be installed. (UMC Sec. 507 & 508)

6.0 **Gas Piping**

- 6.1 Detail the gas piping system. Refer to the Plumbing Plan Check correction list. (UMC Chapter 13, and UPC Chapter 12)

7.0 **Ventilation**

- 7.1 Show on plans that all enclosed portions of groups A, B, E, F, H, I, M and S occupancies customarily occupied by humans shall be provided with natural ventilation by means of openable exterior openings not less than 1/20<sup>th</sup> of the total floor area. In lieu of natural ventilation a mechanical system that is capable of providing 15 cfm of out-side-air per occupant, based on occupant load shall be provided. (UBC 1202.2)